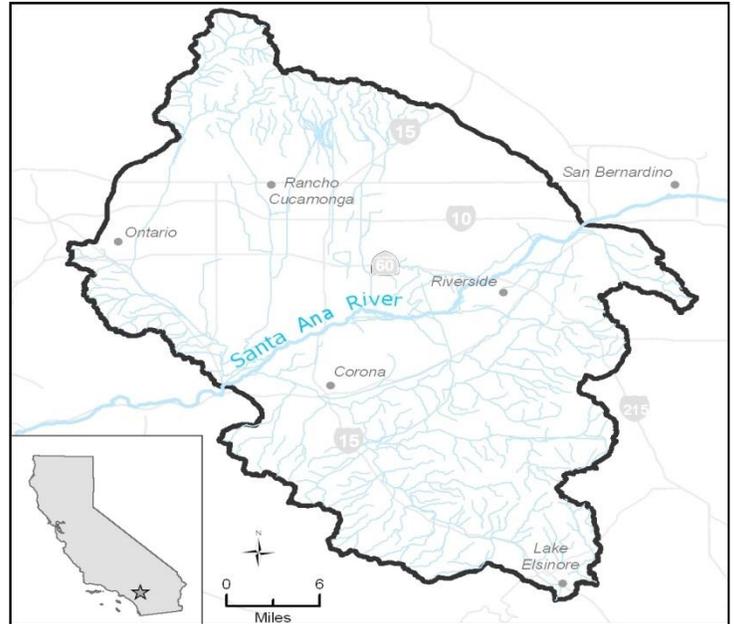


Total Maximum Daily Load Progress Report		Middle Santa Ana River Bacterial Indicator	
Regional Water Board	Santa Ana, Region 8	<b>STATUS</b> <input type="checkbox"/> Conditions Improving <input type="checkbox"/> Data Inconclusive <input checked="" type="checkbox"/> <b>Improvement Needed</b> <input type="checkbox"/> TMDL Achieved/Waterbody Delisted	
<b>Beneficial uses affected:</b>	REC-1, REC-2		
<b>Pollutant(s) addressed:</b>	Bacterial Indicators ( <i>E. coli</i> , Fecal Coliform)		
<b>Implemented through:</b>	Basin Plan, <a href="#">MS4 Permits</a>		
<b>Approval date:</b>	May 16, 2007		

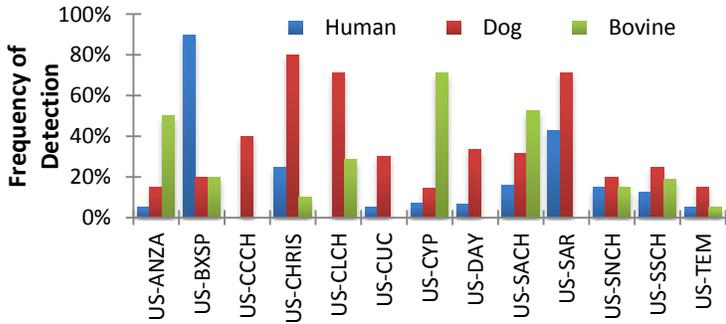
### TMDL Summary

Waterbodies within the 488 square mile Middle Santa Ana River Watershed, including Santa Ana River–Reach 3, and its tributaries (Chino Creek, Cucamonga/Mill Creek, and Prado Park Lake), are impaired due to high densities of bacterial indicators. The [Bacterial Indicator TMDLs for the six Middle Santa Ana River Watershed Waterbodies](#) were approved by U.S. EPA in May 2007. The TMDLs require compliance with LAs/WLAs for Fecal Coliform and *E. coli* during the Dry Season by December 2015 and during the Wet Season by December 2025. Dischargers have been performing watershed-wide compliance monitoring since 2006 and initial bacterial source evaluation activities have been implemented. The TMDLs are implemented through MS4 permits, which enable Comprehensive Bacterial Reduction Plans (CBRPs) that utilize adaptive management approaches. In implementing the CBRPs, dischargers are implementing and expanding non-structural BMPs and conducting intensive source evaluation investigations. An innovative element of this process involves DNA analysis of water samples for targeted bacteria (bacteroides) from selected source animal species. Results of source evaluation activities will be used to develop structural best management practices (BMPs) as indicated.

### Middle Santa Ana River Watershed



### Sources of Impairment



### Water Quality Outcomes

- Stakeholders have ranked and prioritized sub-watersheds based upon initial bacterial source evaluation and have conducted focused investigation of selected sub-watersheds.
- Monitoring and evaluation of selected structural BMPs.
- Detection and elimination of sewer cross-connection based upon results of initial DNA (bacteroides) water sample testing.
- Development and implementation of Comprehensive Bacteria Reduction Plans (CBRPs).

Bacteroides results for source evaluation monitoring locations in MSAR Watershed. Blue Bar = % samples with human bacteroides; Red Bar = % samples with canine bacteroides; Green Bar = % samples with bovine bacteroides.

### Water Quality and Wasteload Allocations

